



### Call for Papers for a Special Session

<b>Title</b>	<b>SS01</b> <b>Tools and methods for supporting design – operation continuum of dependable Cyber-physical Human systems and CPSoSs</b>								
<b>Track</b>	<b>T10 - Development of Ultra Complex Man-Made Engineering Systems</b>								
<b>Organizers</b>	<p><b>Dr. Aris Lalos, Principal Researcher</b></p> <p>Industrial Systems Institute, Athena R.C., 26504, Platani, Patra, Greece          Email: lalos@isi.gr, Tel: +30 2610910305</p> <p><b>Dr. Apostolos Fournaris, Principal Researcher</b></p> <p>Industrial Systems Institute, Athena R.C., 26504, Platani, Patra, Greece          Email:ournaris@isi.gr, Tel: +306972838015</p> <p><b>Dr. Ioannis Chtaziannakis, Associate Professor</b></p> <p>University of Sapienza, Rome, Address: via Ariosto 25, 00185 Rome, Italy          Email: ichatz@diag.uniroma1.it, Tel: +39 0677274073</p> <p><b>Dr. Evangelos Vlachos, Postdoctoral Research Associate</b></p> <p>University of Edinburgh, Edinburgh EH9 3JL, Scotland, UK          Email: e.vlachos@ed.ac.uk, Tel: +306978113324</p>								
<b>Description</b>	<p>The next generation of energy systems, transportation networks, industrial production systems, and large buildings will consist of many smart elements that are globally networked and respond to the challenges that the world faces today: reducing emissions, improving energy and resource efficiency, and providing better services at a lower cost and in a sustainable manner. These infrastructures constitute Cyber-physical Systems of Systems (CPSoS) - they consist of many, often spatially distributed, physical subsystems that tightly interact with and are controlled by a large number of distributed and networked computing elements and human users, and they exhibit the features of Systems of Systems (SoS). These features include partial autonomy of the subsystems, continuous evolution over their life-cycle, frequent and dynamic reconfiguration of the overall system, and the possibility of emerging behaviors.</p> <p>The aim of this Special Issue is to bring together researchers and practitioners from diverse fields of science and engineering working on dependable physically-entangled systems for applications in industrial sectors. We invite authors to submit original research articles, and viewpoint articles related to recent advances and related technologies. We are particularly interested in presenting emerging technologies related to autonomic solutions capable of guaranteeing the overall reliability and security even when the components or subsystems are not fully reliable and unforeseen conditions emerge in the course of operation.. We are open to papers addressing a broad range of topics, from foundational topics regarding the operating principles, and novel design principles for building future intelligent CPSoS to papers presenting advanced frameworks and technological platforms; to pilots reporting innovative real-world deployments. Topics of interest for the Special Issue include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Distributed, Cooperative Signal Processing and machine learning for dependable CP(H)Ss</li> <li>• Augmented reality Tools for increasing situational awareness in CPHSs</li> <li>• Design and implementation of smart dynamic network structures for dependable CPSs</li> <li>• Run time security monitoring solutions for CPSoS</li> <li>• Real-world CPSoS deployments; pilots of intelligent distributed sensing utilizing edge-computing</li> <li>• Low-power solutions for IoT devices with performance scaling</li> <li>• Energy efficiency maximization for networks of massive devices</li> </ul>								
<b>Author's Schedule</b>	<table border="1"> <tr> <td data-bbox="555 2114 837 2114"><i>Submission deadline</i></td> <td data-bbox="837 2114 1013 2114"><i>May 12, 2019</i></td> <td data-bbox="1013 2114 1300 2114"><i>Acceptance notification</i></td> <td data-bbox="1300 2114 1482 2114"><i>June 3, 2019</i></td> </tr> <tr> <td data-bbox="555 2114 837 2114"></td> <td data-bbox="837 2114 1013 2114"></td> <td data-bbox="1013 2114 1300 2114"><i>Final papers due</i></td> <td data-bbox="1300 2114 1482 2114"><i>June 30, 2019</i></td> </tr> </table>	<i>Submission deadline</i>	<i>May 12, 2019</i>	<i>Acceptance notification</i>	<i>June 3, 2019</i>			<i>Final papers due</i>	<i>June 30, 2019</i>
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